APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,521	01/18/2001	Raja Daoud	10002667-1	6409

7590 03/30/2004	EXAMINER
HEWLETT-PACKARD COMPANY	BASOM, BLAINE T
Intellectual Property Administration	

ART UNIT	PAPER NUMBER
2173	

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DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
Office Action Summary	09/764,521	DAOUD ET AL.	
	Examiner	**Art Unit**	
	Blaine Basom	2173	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _07 January 2004_.
2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-20_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail. Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

The Examiner acknowledges the Applicants' amendments to claims 1-3, 8, 12, 16, and

20. Regarding claims 1-20, the Applicants submit that Killian (U.S. Patent No. 6,438,592) fails

to teach generating an interaction profile based on monitored user interaction, wherein as added

to independent claims 1, 8, and 16, this generation of a user profile includes assigning a user

patience level for a particular user. In response, the Examiner presents U.S. Patent No.

5,724,070 to Denninghoff et al., which when combined with Killian, teaches generating an

interaction profile and particularly, assigning a user patience level for a particular user. The

Applicant's arguments with respect to claims 1-20 have thus been considered, but are moot in

view of the new grounds of rejection which follow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

No. 6,438,592, which is attributed to Killian, and also over U.S. Patent No. 5,724,070, which is

attributed to Denninghoff et al. (and hereafter referred to as "Denninghoff"). In general, Killian

describes a system for dynamically improving the delivery time of web content from a server to a

client computer located over a network. The client computer specifically monitors the time

required to receive web pages from the server, and based on this monitored time, future web

pages received from the server may be formatted in order to decrease the delivery time of the

content (see the abstract). Therefore, for a user of a particular client computer, delivery time of

content is optimized, and consequently, Killian is considered to teach a method for optimizing a

computing session for a particular user.

Regarding claim 1, Killian discloses that, in response to an initial URL request from a

client, the server transmits "performance monitoring" instructions to the client computer (see

column 3, lines 23-46). These performance monitoring instructions are executed by the client

computer when retrieving subsequent content from the server, and are responsible for sending to

the server "performance messages" indicating the time required to receive and display such

subsequent content (see column 3, lines 23-46). Depending on the content delivered, a

performance message comprises either: the amount of time taken to download a web page from

the server; the amount of time taken to download an individual web page component, such as a

picture, from the server; the amount of time taken to execute a segment of code associated with a

web page received from the server; the amount of time taken to submit an HTML form; or, the

amount of time taken before the user aborts downloading a web page from the server (see

column 8, line 57 – column 9, line 60). The server receives such performance messages from the

multitude of clients computers with which it is associated, and uses the performance data

comprised within such messages to generate three data structures: a "clientSpaceTree," a

"serverSpaceTree," and a "msgHistory" (see column 9, line 61 – column 10, line 11). These

three data structures are considered an "interaction profile" like that recited in the claimed

invention, as they collectively describe the interaction between the server and each user,

specifically by providing information regarding the delivery times of particular web page

components, which are sent to users of the client computers in response to the user's requests.

Killian particularly discloses that for each client computer, a "browserID node" exists in the

clientSpaceTree, and represents that client computer (see column 19, lines 32-55). More

specifically, Killian discloses that each such browserID node comprises performance data

relating to the client associated with the node (see column 21, lines 27-45). If this performance

data indicates a problem for a particular client, such as an unacceptable length of time required to

receive and download content from the server to the client, the browserID node associated with

the client is designated as a "problemNode" (see column 26, lines 25-38). In response to

subsequent requests by a client represented by such a problemNode, the server generates a "light

version" of the requested web page and delivers it to the client (see column 25, line 46 – column

26, line 11). The light version of the requested web page comprises fewer or smaller images in

order to improve delivery time of the web page to the client (see column 4, lines 20-34). Thus to

summarize, Killian describes a method for optimizing a computing session with a server for a

particular user, the method comprising: a client computer monitoring the user's interaction with

a computer during the computing session, or more specifically, monitoring the user's access of

web pages displayed by the computer during the computer session; generating an interaction

profile, which is maintained by a clientSpaceTree, a serverSpaceTree, and a msgHistory data

structure, and which is based on the monitored user interaction; and lastly, optimizing the

computing session with the server based at least in part on the generated interaction profile and a

response policy, wherein particular, this response policy involves delivering lighter versions of

web pages to the client if the interaction profile of the client shows an unacceptably high delivery

time for content to the client. Furthermore, Killian discloses that the monitored user interaction

data may be used to ascertain an "unloadTimeDistribution" for each web page provided by the

server. This unloadTimeDistribution specifically describes the statistical distribution of

"PageUnload" times for the page (see column 23, lines 44-48), whereby a PageUnload time

refers to the amount of time before a user aborts downloading the particular web page (see

column 9, lines 20-24). Thus, as expressed by Killian, this unloadTimeDistribution provides an

indication of how patient users are in waiting for the particular page to be downloaded (see

column 23, lines 44-48). It is understood that this unloadTimeDistribution is created using the

data monitored and provided by the above-described performance messages, which are sent by

each client computer associated with the server (for example, see column 9, lines 7-11). Thus

Killian teaches generating a user patience level, but contrary to claim 1, this user patience level is

assigned for a particular web page, and not for a particular user.

Like Killian, Denninghoff discusses downloading content, presumably from a server (see

column 1, lines 14-44), and also discusses aborting such downloads if they take too long for the

particular user (see column 1, line 58 – column 2, line 14). Specifically regarding the claimed

invention, Denninghoff teaches that the amount of content transmitted to the user may be based

on the patience of the particular user (see column 4, lines 19-25).

Therefore, it would have been obvious to one of ordinary skill in the art, having the

teachings of Killian and Denninghoff before him at the time the invention was made, to modify

the server taught by Killian to additionally generate and assign a user patience level to each

particular client computer, such that as done by Denninghoff, the server transmits an amount of

content to each client based on this patience level. It would have been advantageous to one of

ordinary skill to utilize such a combination because such a method of transmission provides less

frustration for each particular user, as is demonstrated by Denninghoff.

In reference to claims 8 and 14-16, Killian discloses that the above-described method

may be implemented using an applet delivered to the client computer, whereby this applet

monitors user interaction through an Internet browser (see column 3, lines 34-63). For the

reasons described above, it is understood that this data resulting from this monitored user

interaction is used for generating an interaction profile and a response policy, and for updating

this interaction profile, and wherein this interaction profile is used for optimizing the computing

session with the server. A computer executing such an applet is therefore considered an

apparatus, like that of claims 8 and 16, which is for optimizing a computing session for a

particular user.

With respect to claims 2-4, Killian discloses that the above-described

unloadTimeDistribution provides an indication of how patient users are in waiting for a

particular page to be downloaded (see column 23, lines 44-48). As described above, this

unloadTimeDistribution specifically describes the statistical distribution of PageUnload times for

the page, whereby a PageUnload time refers to the amount of time before a user aborts

downloading the particular web page. Thus for a particular user and page, this PageUnload time

provides an indication of how patient the user it, and therefore, it is understood that the above-

described patience level assigned to each user is generated using the PageUnload times received

from the user. Like the unloadTimeDistribution, it is understood that for this user patience level

assigned to each particular user to be valid, a set number of abort times over a "recent" time

duration must be monitored (for example, see column 36, lines 8-27). Generating the user

patience level described by Killian and Denninghoff therefore involves monitoring user abort

time and user abort frequency for each particular user, the user abort frequency being monitored

to determine if the user patience level is valid. In addition to user patience level, Killian

discloses that the interaction profile, specifically the serverSpaceTree, also maintains a count of

the total number of pending URL requests for each web page, a count of the total number of

delivered URL requests corresponding to each web page, and a count of the average time

required for the server to receive a URL request for each web page and subsequently send out the

data corresponding to the web page (see column 23, lines 26-30, and column 22, lines 52-66). It

is understood that this data indicates user purpose, specifically the relative popularity of web

pages as desired by the users. Since a URL request for a web page is associated with a particular

set of instructions for extracting a particular set of data, as is known in the art, a URL request for

a web page is considered a query. Generating the interaction profile described by Killian and

Denninghoff therefore also comprises identifying a user purpose, wherein such a user purpose is

identified by monitoring user queries for web pages and measuring a time between these

monitored queries, this time specifically being the average time required for the server to receive

a query for a web page and subsequently send out the data corresponding to the web page.

In reference to claim 5, Killian discloses that the clientSpaceTree, which as described

above is part of an interaction profile, comprises a "browserID" for each client associated with

the server, whereby this browserID uniquely identifies the client (see column 21, lines 27-46).

More particularly, this browserID uniquely identifies the browser application used by the client

(see column 8, line 64 – column 9, line 6). Thus generating the interaction profile described by

Killian necessitates gathering system data including this browserID, which is considered to

uniquely identify the user platform, and more specifically, the browser application in use on this

user platform. In addition, Killian discloses the serverSpaceTree, which as described above is

part of an interaction profile, comprises a node for each file stored on the server (see column 22,

lines 10-32). It is understood that such files comprise the web pages and web page components

which are sent to the client computers (for example, see column 23, lines 31-53). As such web

page components are logically deployed within the web pages, these web page components are

considered "resources" like those recited in the present application. Thus generating the

interaction profile described by Killian necessitates gathering system data including available

resources.

In reference to claims 6-7, 9-10, and 17-19, Killian discloses the clientSpaceTree, which

as described above is part of an interaction profile, maintains a "browserID node" for each client

computer receiving web pages from the server (see column 19, lines 32-55). More specifically,

Killian discloses that each such a browserID node comprises performance data relating to the

client associated with the node (see column 21, lines 27-45). If this performance data indicates a

problem for a particular client, such as an unacceptable length of time required to receive and

download content from the server to the client, the browserID node associated with the client is

designated as a "problemNode" (see column 26, lines 25-38). In response to subsequent requests

by a client represented by such a problemNode, the server generates a "light version" of the

requested web page and delivers it to the client (see column 25, line 46 – column 26, line 11).

The light version of the requested web page comprises fewer or small images in order to improve

delivery time of the web page to the client (see column 4, lines 20-34). Such images are web

page components, and thus as expressed in the paragraph regarding claim 5, are considered

resources. Consequently, Killian teaches optimizing the computing session by allocating a

number of these resources based on the above-described interaction profile and response policy,

the response policy involving the delivery of lighter versions of web pages to the client if the

interaction profile of the client shows an unacceptably high delivery time for content to the

client. Thus the number of resources is allocated to optimize delivery time of the web for a

particular client. By the same reasoning, Killian teaches optimizing the computing session by

formatting output for the browser application by dictating a level of display detail based on the

above-described interaction profile and response policy.

As per claims 11-13, and 20, Killian teaches generating an interaction profile, which is

maintained by a clientSpaceTree, a serverSpaceTree, and a msgHistory data structure, and which

is based on the monitored user interaction, as is described above in the rejection for claim 1. As

shown above in the rejection of claims 2 and 5, this interaction profile maintains system data and

user data, wherein the user data includes user purpose and user patience level, and wherein the

system data includes at least a platform type, an application ID, and resource availability. Thus

in regard to claim 20, Killian is understood to present a means for assigning a user patience level;

a means for identifying a user purpose; and a means for creating a session ID, i.e. application ID,

which is based on the assigned user patience level and identified user purpose.

Conclusion

The prior art made of record on form PTO-892 and not relied upon is considered

pertinent to applicant's disclosure. The applicant is required under 37 C.F.R. §1.111(C) to

consider these references fully when responding to this action. The Aganovic et al. U.S. Patent

cited therein teaches downloading documents based on the patience level of the particular user.

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this
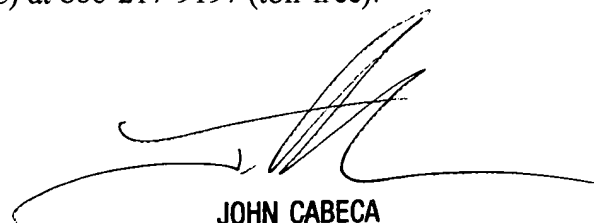
final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Blaine Basom whose telephone number is (703) 305-7694. The

examiner can normally be reached on Monday through Friday, from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Cabeca can be reached on (703) 308-3116. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

btb

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